500 Series MicroIR™ Camera Cores

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VENDOR DESCRIPTION

Based on BAE SYSTEMS uncooled MicroIR Technology, the 500 Series™ (SCC500L, SCC500H and SIM500X) has established a new standard for high performance, low cost IR camera cores aimed at the commercial and military OEM markets. The 500 Series camera cores generate superior image quality over an extended operating temperature range with a wide dynamic range (14 bit) and real-time 60Hz frame rate (30Hz for the SIM500X). All this performance is packed into an innovative, small, lightweight and robust package.

Common Architecture

Unique to the 500 Series are the common electronics and mechanical interfaces shared by both camera cores, providing the perfect solution for OEMs developing a family of systems differentiated by resolution. No other series of camera cores offers this level of commonality for ease of integration across applications.

Flexible Form Factor

The 500 Series camera cores incorporate a flex cable between the front-end card/lens assembly and the back-end electronics. This feature provides the OEM with the flexibility to adjust the camera core layout to meet critical packaging constraints.

SCC500L™ shown with 9mm Lens

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PM RUS
Robotic & Unmanned Sensors

Business Category: Large Business

PIR

Power Source		Environmental	
Input voltage	5.5 - 12.8 VDC	Operating Temperature Range: -40° to 84°C (-40° to 185°F)	
Power (nominal)	2.5 watts (SCC500L/H) 3.5 watts (SIM500X)	Shock: 100G, 1 msec Vibration: NAVMAT 6 Grms, 20-2000Hz	

Sensor	Description	Detection	Size/Weight	Features
Infrared Focal Plane Array (FPA)	Uncooled Vanadium Oxide (VOx) Microbolometer	Lens-dependent	Not Applicable	■ 160 x 120 resolution (SCC500L) ■ 320 x 240 resolution (SCC500H) ■ 640 x 480 resolution (SIM500X)

Device	Description	Message Type	Size/Weight	Features
500 Series	Infrared Camera Cores/Modules Model / Resolution / Detector Pitch SCC500L 160 x 120 46um SCC500H 320 x 240 28um SIM500X 640 x 480 28um	RS-485 Interface	**SCC500L/H** Nominal dimensions w/ 9mm lens (L x W x H): 8.1 x 4.8 x 4.3 cm / 3.2 x 1.9 x 1.7 in Nominal weight w/9mm lens: 162g / 0.36 lbs. **SIM500X** Nominal dimensions (no lens) (L x W x H): 5.1 x 5.8 x 5.8 cm / 2.0 x 2.3 x 2.3 in Nominal weight (no lens): 130g / 0.29 lbs.	■ Common electrical and mechanical interfaces ■ Single electrical interface: Power in, video out ■ Flexible form factor ■ 60Hz frame rate (SCC500L/H) ■ 30Hz frame rate (SIM500X) ■ Analog (RS-170) & digital video (8- or 16-bit serial, LVDS) ■ Automatic & manual (selectable) gain/level adjustment ■ 8-14 µm spectral response ■ RS-485 serial interface